

Amendments to the Specification:

In the specification:

Paragraph beginning at page 1, immediately following the title of the application, has been added as follows:

--Cross-Reference to Related Applications

This application is a continuation (and claims the benefit of priority under 35 USC 120) of U.S. application serial no. 10/081,714, filed February 20, 2002, which claims priority of U.S. application serial no. 09/344,308, filed June 24, 1999, which claims the benefit of priority under 35 U.S.C. §119(e) of U.S. Provisional Application No. 60/129,384, filed April 13, 1999. The aforementioned applications are explicitly incorporated herein by reference in their entirety and for all purposes.--

Please amend the paragraph beginning at page 7, line 3, as follows:

--At least one optical sensing array, such as an objective lens, 44a is located above the stage and a light source 48 is located beneath the stage. Light from the source illuminates the stage and slide so an image of the biological specimen is generated by the optical sensing array, for example an objective lens. This image is stored in memory. Preferably the image is a digitized or digital image. As the viewing field of the optical array is smaller than the entire biological specimen, the stage is moved in one planar direction by a distance that corresponds to the length of the field of view in that direction. The image generated at that position may then be captured and stored. The acquired image may be flipped along its centerline due to the optical flipping of the original image. Movement of the stage and capture of resulting image ~~continues~~ continue in the same direction until the end of the specimen area of the slide is reached. At that time, the stage is moved in the other planar direction by a distance that corresponds to the length of the field of view in that direction and another image is generated and stored. The slide is traversed or scanned in this manner until the entire specimen area of the slide has been viewed through the objective lens. These stored images may then be placed together in the order in which they were collected to generate a composite or reconstructed image of the cellular

specimen. This composite image may then be analyzed to detect a structure that extends across more than one image field or more than one slide for further analysis. Such analysis may result in the identification of a candidate object or area of interest in both the field of view as well as objects that overlap two or more fields of view. In such instances, the system will automatically determine the coordinates for these candidate objects and may obtain additional images at various magnifications.--

Please amend the paragraph beginning at page 18, line 19, as follows:

--With reference to Fig. 10, an image 302, representing an objective's field of view is acquired at a first particular coordinate on the slide sample 301. The slide is automatically repositioned on the X-Y stage to obtain a new or second field of view corresponding to a second particular coordinate ~~303~~ 302. This new field of view is preferably immediately adjacent to the first field of view, however, so long as the coordinates, thus the address/identity, of each field of view are retained in the imaging system, histological reconstruction may be performed. This process is repeated until images for the whole of the specimen have been acquired.--

Please amend the paragraph beginning at page 20, line 20, as follows:

--With reference to FIGURE 1, a slide prepared with a biological specimen and reagent is placed in a slide carrier 60 (FIG. 5) which preferably holds four slides. The slide carriers are loaded into an input hopper 16 of the automated system 10. The operator then enters data identifying the instrument protocol which contains information on the size, shape and location of a scan area on each slide, or, preferably, the system automatically locates a scan area for each slide during slide processing. The operator then activates the system 10 for slide processing. At system activation, a slide carrier 60 is positioned on an X-Y stage 38 of an optical system, such as microscope subsystem 32. Any bar codes used to identify slides are read and stored for each slide in the carrier. The entire slide is ~~rapidly~~ scanned at a low magnification, typically 10x. At each location of the scan, a low magnification image is acquired and processed to detect candidate objects or areas of interest. Preferably, color, size and shape are used to identify

objects or areas of interest. The location of each candidate object or area of interest may be stored by reference to its coordinates or address. Each field of view may also be stored as part of a larger composite image (described in detail elsewhere).--